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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/708,516	11/09/2000	Ikuro Sakaguchi	ND-363US	1745

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EXAMINER

GESESSE, TILAHUN

ART UNIT	PAPER NUMBER
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2684

DATE MAILED: 06/19/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 09/708,516	Applicant(s) SAKAGUCHI, IKUO	
	Examiner Tilahun B Gesesse	Art Unit 2684	
	-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --		

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 09 November 2000.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-8 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-7 is/are rejected.

7) ☒ Claim(s) 8 is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some * c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3,4,5</u> .	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6) <input type="checkbox"/> Other:
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DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

2. Claim 5 is objected to because of the following informalities: in claim 5, line 20 has a miss spell term "cannel". Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahara et al (5,450,613) in view Ishizuka et al (5,805,666).

As to claim 1, Takahara et al disclose portable telephone radio set (fig.1) with an interference detection function (21) (col.11, lines 49-55 and fig.1), comprising: a warning section (22,9) for warning radio wave interference (col. 11, lines 57-68 and col.12, lines 30-48 and fig.1), and a control circuit section (7 and 8) for detecting interference of radio waves and controlling said warning section (col. 12 lines 15-40 and fig.1) said control circuit section (8) reporting, when said control circuit section detects a

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radio wave interference fault ,contents of the fault to said warning section so that said warning section may give a warning of radio wave interference in a predetermined form based on at least one of visibility or audibility (col. 13, line 65-col.14, line 25 and fig.2). Takahara does not specifically disclose the mobile unit can be externally connected with terminal equipment to effect data communication. However, Ishizuka discloses radiotelephone (A10) externally connected (A10 A25) with computer for data communication (A30) (col. 13, lines 1-50 and fig.5). Since Takahara teaches an output coupled to peripheral (101) (col. 27 lines 10-50 and fig.13). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the mobile unit of Takahara, to interface with data processor, as taught by Ishizuka, for diagnoses a signal interference or strength of received signal and generate a indication signal to the mobile unit.

As to claim 2, Takahara et al disclose the control circuit section (8) detects a radio wave interference fault in the course of selection operation of a standby channel from at least one of unfavorable reception of broadcast information and interruption of radio waves occurs in either one of conditions out of zone indication and abandonment of the pertaining channel (col. 12 line 66-col.13, line 18 and fig.2).

As to claim 3, Takahara discloses the control circuit section detects a radio wave interference fault in the course of a zone switching operation which is caused by the presence of a channel having a higher reception level than that of the channel being waited from that at least one of unfavorable reception of broadcast information and interruption of radio waves occurs in a condition of abandonment of the pertaining

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channel (col. 12 line 66-col.13, line 18, abandoning the channel a base station due to out of service area "zone" and switching to another base station to a new service area "zone").

As to claim 5, Takahara discloses control circuit section (8) detects a radio wave interference fault during communication from that, when the channel is switched to a channel of a level lower than the level of the channel which has been used for communication till then, it is a cause of the channel switching that at least one of interruption of radio waves occurs (col.13 , line 65-col. 14 line 40 and fig.3).

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takahara in view of Ishizuka as applied to claims 1-3, and 5 above, and further in view of Hasegawa (6,073,024).

As to claim 4, Takahara and Ishizuka every as explained above, except the level of each of perch channels is measured, is higher than a predetermined threshold value. However, Hasegawa discloses the level of each of perch channels is measured, is higher than a predetermined threshold (col.19 lines 19-29 and fig. 14). Since both art are combating the frequent retransmission upon the communication is disabled and warn the user that communication is disable due to signal strength is below minimum threshold. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Takahara and Ishizuka in measuring perch channels detected, as taught by Hasegawa, in order to retrieve by scanning perch channels with higher signal strength to communicate at specific time and location.

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5. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahara in view Ishizuka as applied to claims 1-3,5 above, and further in view of Matsumoto (6,556,822).

As to claim 6, Takahara and Ishizuka do not disclose displaying the abandoned channel number. However, Matsumoto discloses the display device 24 displays signals including warning which informs the user that the digital cordless telephone is out of service area and a number of sample signals or bars "channel numbers" with lower signal strength (interfering channels) and eventually disappear (col. 5, lines 5-19 and fig. 3A-3D). Since all prior art, in the similar field endeavor, in detecting and measuring signal strength for future usage, therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to improve Takahara and Ishizuka by warning ahead of time, as taught by Matsumoto, in order to avoid all of a sudden terminating communication, retransmitting and dialing attempt that the user make to panic.

As to claims 7, Takahara and Ishizuka do not specifically disclose the number of occurrences of retransmission per unit time measured during the communication. However, Matsumoto discloses the number of failure of reconnecting for certain time (column 2 lines 55-68 and fig.4). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Takahara and Ishizuka in warning the user based on number of failure "occurrence", as taught by Matsumoto, in order to avoid sudden terminating a communication under progress.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takahara in view of Ishizuka, as applied to claim 1, above, and further in view of applicant admission prior art .

Allowable Subject Matter

6. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art fail to teach the feature "a radio wave warning is displayed including a rate of occurrences of retransmission per unit data measured during the communication".

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Coverdale et al disclose portable telephone radio set (fig.1) with an interference detection function (25 and 70) to which a PSTN "terminal equipment" can be externally connected to effect data communication therewith (col. 3 lines 23-28 ,col.5 lines 37-40 and figs. 1 and 5), a warning section (60) for warning radio wave interference (col.2 lines 1-12 and fig.1), and a control circuit section (70) for detecting interference of radio waves and controlling said warning section (col. 3 lines 30-36 and fig.1) said control circuit section (60) reporting, when said control circuit section detects a radio wave

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interference fault (col.3 lines 23-33 and fig.1), contents of the fault to said warning section so that said warning section may give a warning of radio wave interference in a predetermined form based on at least one of visibility and audibility (col.2 lines 1-12).

Conclusion

8. *Any response to this action should be mailed to:*

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications intended for entry)

Or:

*(703) 746-6042 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")*

*Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Sixth Floor, (Receptionist).*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tilahun Gesesse whose telephone number is (703) 308-5873.. The examiner can normally be reached on Monday-Friday from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor, Nay, Maung, can be reached on (703) 308-7745. The fax phone number for this Group is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 306-0377.

TBG

June 12, 2003


**TILAHUN GESESSE
PATENT EXAMINER**